13. DOMESTIC AND EXPORT MARKETING PROSPECTS FOR SMALL-SCALE GROWERS IN NORTH QUEENSLAND

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This paper examines prospects for small-scale farm foresters in terms of marketing factors that are influenced by the industrial plantations of timber in Australia and responses available to small-scale forestry. Factors that promote the prospects of lesser used and lesser known species are used to evaluate market prospects for north Queensland timber. Market prospects are identified and the importance of end-user requirements in achieving these is demonstrated by examples of successful market approaches to sales of Australian-sourced timber.

INTRODUCTION

Small-scale farm foresters do not contribute the majority of supply to the Australian national forest estate but their contributions are significant in the overall supply of timber in Australia. The last National Forest Inventory (Bureau of Rural Sciences 2002) indicated an estate in the region of 1.5 Mha and out of that total estimates indicate up to 16% involved small-scale producers with industrial joint ventures and leasehold arrangements with government or private industry (Cox 2002). An extended insight of this inventory assessment was that only 5% of the national forest plantation involved farm foresters contributing to the national plantation supply of wood from their own land without industrial associations.

The national forestry industry is dominated by industrial wood plantations which are either state managed or privately owned and to that extent the market prospects, both domestically and internationally for farm forestry are influenced by industrial species choices, pricing behaviour and market selection. Plantations of *Pinus radiata* and *Eucalyptus globulus* in Western Australia, Victoria, New South Wales and Tasmania illustrate how alliances between industrial foresters and farmers can and do work successfully. As a result of this, the market behaviour of farm foresters could be described as predetermined where industrial influence dictates the best choice is through a joint venture or cooperative alliance with a dominant supplier or processor in their region, unless the individual farmer is not happy with the stated financial or other management arrangements.

For small-scale growers in Queensland there is an infant framework of Regional Plantation Committees and timber cooperatives that may provide the central structure necessary to displace the industrial and government model of association evident elsewhere for farm forestry adoption. These groups have little resourcing and their ability to influence the direction of the industry is currently limited due to their lack of funds. The timber industry in north Queensland has a potential that could set the region apart from the industrial plantations of the southern states and south-east Queensland, the most obvious being the range of timber species available and climate that might be used to support distinct production and marketing prospects. However, the industry in north Queensland is still dominated by DPI Forestry, who own 4,000 ha of plantations compared with about 2,000 ha privately-owned, most of which is less than eight years old.

QUEENSLAND WOOD SUPPLY, PRICING AND MARKET LESSONS

Australian state governments have traditionally supplied wood through managed forests on Crown land and allowed processors access to their resources. In using contracts that lasted between five and 40 years they effectively set the base prices in the market for logs of accepted species though royalties, residual payments and recently in Queensland the application of a dedicated pricing index called the WWI (Wood Weighted Index) for softwoods that is now also being extended to hardwoods. These contract base price arrangements for established species can influence the market values for other niche timber species in common end-use markets if they are in competition within those same end-use markets.

As an example of how markets can be affected by supply changes, the market for mouldings (and structural timber) in Queensland were for many years partly supplied by the *P. radiata* of southern states with the balance from Queensland derived *A. cunninghamii*. They competed in the Queensland state market for housing industry mouldings and there was an inherent advantage to the locally supplied species due to location and royalty arrangements with the state government supplied logs. This situation was challenged when New Zealand derived *P. radiata* began entering the market in much greater volumes from the end of the 1990s with high quality lower-priced product and in later years low-priced finger-jointed mouldings. The pressure by the local industry to change the pricing regime led to a revision of the supply arrangements by the state to allow the processors to meet the market price of these new competitors (DPI Forestry 2002) but the local industry was put on notice that it had to look for new markets for long-term survival.

Queensland processors reacted to this by acknowledging that *A. cunninghamii* was wrongly positioned in the market and efforts were subsequently made to reposition this species by entering Chinese and Japanese markets and aligning it with the related *Agathis* species and pricing in those destination markets. The twin benefits that have emerged are a higher export price level and new overseas markets.

Any farm forestry growers in Queensland that grow *A. cunninghamii* would benefit from this realignment of the industry and state government to an export market strategy, but small-scale suppliers of this species make a negligible contribution in overall market volumes. There are lessons for timber marketing though. First, market prospects for small-scale suppliers are typically aligned to industrial processors success in developing new markets. Second, market prospects of lesser known species (LKS) and lesser used species (LUS) often hinge upon a buyer's acceptance of name and perceived characteristics of wood. An example of managed perceptions is the case of *E. regnans*, *E. obliqua* and *E. delegatensis*. These are Australian hardwoods, the characteristics of which have been used to provide a relatively uniform product for chosen markets. These species are collectively known as Tasmanian Oak or Victorian Ash in export and domestic markets and attempt to align their product brands to trade on customer familiarity with ash and oak species in overseas markets including the USA and Japan. They have been successful in doing so through the central market desk of Australwood in Victoria.

MARKET PROSPECTS DEPEND ON MORE THAN ENSURING SUPPLY

In Queensland the variety of species of timber grown industrially concentrates on native and exotic softwoods while in recent times a greater state government commitment to hardwoods has occurred. The state government (DPI–Forestry) has already established 5000 ha of hardwoods in south-east Queensland and plans to plant an additional 5000 ha in the south-east by 2009 in a coastal swathe extending to Gladstone, bringing the total hardwood estate to 10,000 ha. They are actively seeking farm growers with economic lot sizes (at least 20–30 ha and preferably more), primarily for leasing contracts but also limited joint ventures to be

part of the state's hardwood plantation vision. The definition of small-scale forestry might be affected in south-east Queensland if this scheme achieves widespread success. In Western Australia there are similar requirements by the Department of Conservation and Land Management (CALM) for access to the state government scheme for *E. globulus* plantations. This clear support by DPI Forestry will benefit partner growers in two ways. Firstly, more secure revenue arrangements are available to growers who can take advantage of the *profit a prendre* legal arrangements by the state government and the annual rental returns that are possible given these new legal arrangements. Secondly, the harvesting and marketing arrangements, and therefore prospects for the sales of timber, will be the responsibility of DPI Forestry. The inference in this government-supported plantation approach is that the prospects of suppliers will be tied to the market success of the scheme.

Farm foresters that plant species aligned with industrial interests or state governments in joint venture or leasehold arrangements have greater market certainty but perhaps lower profit potential. There are no independent 'marketing' opportunities in this scenario. Farm foresters are 'price takers' in this type of industry structure and their 'prospects' are limited to the returns on their contractual agreements with their partners.

It is reasonable to think that future success of Queensland hardwoods will require a central market desk approach similar to that provided by Australwood of Victoria if market prospects for its timber are to be realised. The Victorian Australwood group began in 1993 when a dozen sawmill companies formed a network, and they now market Australian hardwoods in overseas markets including Japan, China and the USA. Using an approach that for competitive advantage relies on the promise of more stable output from the combined supply of its members, their market prospects are enhanced by a sustainable timber message and technical support for customers in the markets they enter. This kind of solution is a marketing approach to the industry and it requires an acceptance of the need to manage the process from growing trees through to harvest and processing them into products which are then delivered to the end-user.

A marketing approach implies that products are tailored for the end consumer and if necessary the processes, production and delivery are adjusted to the end market needs to enhance success. As Toivonen and Laurila (1997) stated, 'The marketing personnel need to be able to deliver the end-users´ requirements regarding the wood material for those making the decisions about what kind of wood raw material is used.' This is demonstrated in marketing material for Australwood, where their product characteristics and grades are identified for consumers to support their buyers' need for information, and a uniform approach is adopted to their timber offerings in any prospective market. In entering the Japanese market, some of the key Australwood ingredients for success, according to its director (Gooding 2000), were clear government support, effective market entry research, close relationships with potential customers and dealing directly with users rather than trading houses. Australwood has built on this approach to enhance its export prospects. It concentrates on a few end-uses for its products such as flooring and cabinet work, and its timber grades include features such as blemishes caused by pests by having a range of grades from feature to rustic grades.

FARM FORESTRY AND LUS

Farm foresters who are not aligned with state or private interests will not necessarily plant industrial species. The reasons for this are diverse. The variety of supply of available timbers from farm forestry in Queensland is potentially much greater than in other states, due to the range of climate zones and productive tropical rainforest areas found in the state. The number of species of rainforest and hardwood timbers available for use in cabinet -making in Queensland gives an indication of the variety that used to be available in the market when native rainforests were logged – now these are protected and the supply has almost

completely dried up. A recent listing of timber species supply in the Queensland market suggests that more than 50 native species are available (Smorfitt *et al*. 2002). Many of these species are not produced in marketable quantity and reflect recent changes in logging restrictions on private lands in north Queensland rainforest areas. On the one hand, if supply could be increased, this might be seen as an advantage to the end-user by providing a large range of choices for cabinet-makers that farm foresters could take advantage of. But there are several problems that are demonstrated by this range of possible timber material, which can affect market prospects. LUS have inherent problems such as maintaining uniform quality and supply certainty, understanding structural characteristics and workability of the timber, pricing and even transport requirements.

A survey carried out for the ITTO (Eastin *et al.* 2000) involving Ghanaian sawmill and value-adding wood processing industries and US importers and wholesalers of tropical hardwood lumber and veneer gives an indication of the factors that enhance prospects for LUS species. Table 1 indicates the factors identified and their relative market importance as identified by the respondents. The most important factor for success was reliable supply and this is understandable in markets where distributors and retailers treat timber as a commodity. In a farm forestry sector where a large variety of species has been the norm, reliability of supply of individual species is unlikely to be achieved and adds to the difficulties of achieving market success.

A more analytical assessment of the factors implies the need for 'organisation' to achieve reliable supply, the provision of appropriate technical and promotional material and the achievement of certification for products. In addition, there is a need for 'collaboration' in meeting the need for sample volumes and pricing for a market entry strategy. These factors are as important in a domestic market as they are in an export market to achieve the success all growers have in mind when they plant.

Table 1. Importance rating of different factors in promoting the introduction and acceptance of LUS. Summary rating of Ghanaian and US responses (n=120 firms)

Factor	Importance rating
Availability of a reliable supply of product	6.34
Availability of technical/promotional material	5.68
Availability of small trial volumes	5.38
Low trial price	4.86
Acceptance of the LUS by an influential firm	4.82
Risk-free trial period	4.48
Certification of the LUS	4.39

A major question that arises for the farm-forestry sector is whether the current organisational framework can provide the organisation and collaboration required for achieving some of these factors, and whether there is enough supply for 'niche' timber markets – there may simply not be enough trees already in the ground. Achieving this is difficult in a commercial environment where goals are clearly identified and participants have a model of supply chain collaboration in other industries to identify with in striving to create new market prospects and profit from their joint collaborative behaviour. In the Australwood case mentioned earlier the species are limited in number and linked by a uniform and marketed brand name and the commitment comes from commercial timber mills over the last decade.

MARKET PROSPECTS, SPECIES AND DIFFERENTIATION

If north Queensland, farm foresters commit themselves to differentiation of species planted rather than using successful established species grown by industrial forestry their prospects

for profit in end-use markets will be affected. In a sense the different climate, land use and just the issue of their location creates the opportunity to distinguish their planting choices, but they have to bear the cost of greater difficulty in establishing a market for their product.

An example of a current prospect for farm forestry in north Queensland is the attempt to establish commercial plantations of mahogany. African Mahogany (*Khaya senegalensis* and *Khaya nyasica*) commands a premium price in end-use markets in the northern hemisphere, is a recognised furniture species and in the dry tropics of north Queensland has the potential to grow at a commercially attractive rate in managed plantations, although this is yet to be demonstrated on a large scale. This species can serve to illustrate how the prospects for north Queensland timbers can be enhanced, if large plantations arise of this species then farm foresters may be able to benefit by choosing to grow this species even though their land areas may not reach the desired size of commercial investors.

Adopting a unique species as a plantation choice can also create difficulties. Mahogany commands a premium price in the current market but its future prices are still subject to the value the market will place on it. It has predicted rotation periods of 20 years from the added climatic benefits of expected fast growth in north Queensland. It is also an attractive species because it can be grown on large properties. It still faces the difficulties of establishing a market presence for a new source of supply and establishing appropriate and supported standards for an end-use market. These higher establishment costs may be outweighed by the 'absolute scarcity' to end-use demand of a timber like mahogany, particularly once native forest sources of this species are logged out or locked up in reserves.

In contrast to mahogany, exotic pine (e.g. *P. radiata*) is ubiquitous and can only ever experience short-term 'relative scarcity' in markets due to the large range of producers that exist in world markets, there is a ready supply of it from many sources because it is an established and successful industrial plantation species. Its price is relatively stable and reflects the nature of its market supply. As a generic commodity timber, its characteristics have been enhanced by selected planting and management methods and its end-uses have been expanded. *P. radiata* now has many enhanced characteristics due to constant improvement in management, processing and marketing. It is capable of high structural strength with appropriate drying techniques and as earlier mentioned has been successful in crowding out hoop pine (*A. cunninghamii*) in the mouldings market in Queensland. Its prospects are clearly aligned with industrial suppliers, but this can be attractive to farm foresters who want certainty in silvicultural management techniques and end-use markets.

Unique species or industrially different timbers that are chosen by farm foresters face the problem of achieving a balance between meeting the constraints of their micro-environment, their own land-use needs and the special requirements of different species. Farmer choices often neglect the important factor that will enhance their market prospects for financial return in the future, an assessment of the needs of potential end-users in the market. Figure 1 demonstrates the necessary conceptual integration of these factors in the decision of the farm forester to plant a particular species.

African mahogany has an existing market. Its end-uses are well established, including parquetry flooring, short lengths for feature timber, woodturning blanks, the high-end furniture market and veneer demand which can be supplied from different stages of the tree growth and match end-user requirements. Its market prospects are enhanced by its known features in destination markets. Farm foresters who plant this species are therefore enhancing their prospects for successful marketing of their timber.

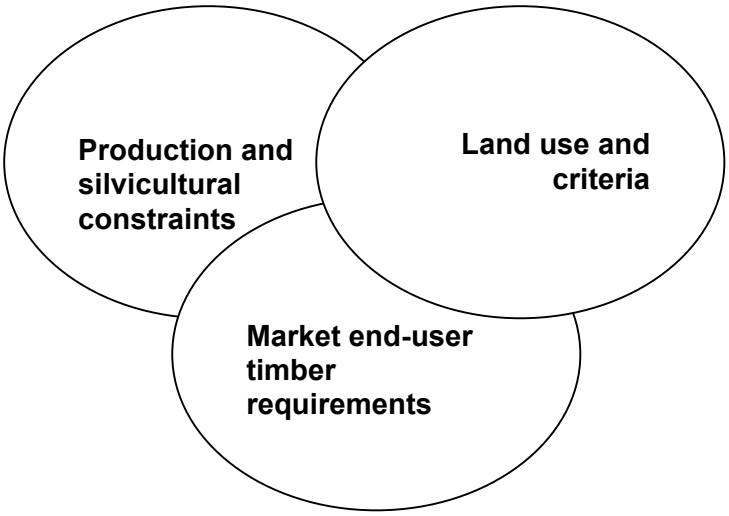

Figure 1. Market prospects need to be part of the planting decision

JAPANESE MARKET PROSPECTS FOR THE TIMBERS OF NORTH QUEENSLAND

Japan is Australia's major export partner and a major world market for timber; along with China it is the best prospect for any timber exporter in the region. Japan has a large market for timber housing and timber fitouts beyond its population size. The Japanese population have a preference for timber buildings. In 1999, Japan had 1.2 million housing starts compared to the USA which had 1.67 million yet Japan has less than half the United States population. These figures indicate the relative importance of timber housing in their market and prospects for trade. In addition to new housing starts there is a large market for rebuilding and refurbishment. The *Japan Lumber Journal* reported in September 2003 that in Japan there are about 20 million units of over-30-year-old houses, for which rebuilding is necessary. Among them, wooden houses comprise about 10 million units.

Japanese timber housing demand is strong for religious, cultural and aesthetic reasons. Their use of timber as a feature is also common. The Japanese consumer favours premium products and rainforest timbers properly presented can be successful in this sophisticated market. One reason is that the size of the market provides the natural occurrence of demand segments for the full range of timbers, but the market demands attention to detail that the individual farm forester and even a representative organisation would find difficult to service.

The traditional nature of timber demand in housing can work against market prospects for rainforest timbers. This occurs because most north Queensland rainforest timbers have strong grain features and colour. This is highly desirable in feature timbers and high-value furniture, flooring and veneers. The problem is that features including weight and appearance in rainforest hardwoods can become a problem for a market that wants light, strong, pale and straight grained timbers. As an example, the typical timber species used in post and beam Japanese houses illustrates the current demand in the market. Typical timbers used include Japanese cedar (*Cryptomeria japonica*), Sitka spruce (*Picea sitchensis*), white spruce *(Picea glauca*), hemlock (*Tsuga heterophylla*) and radiata pine (*P. radiata*). Meeting Japanese Agricultural Standards and Japanese Industrial Standards for small supplies and non-uniform species is another problem in this market. Current prices of $US380 m^3 for 2x4 timber shows that it is a lucrative market but one that deals in high volumes and would be difficult to service. There may be greater prospects for entry into a narrow market, such as shoji and fusuma (sliding doors) or amado (rain doors) in Japanese housing.

Rainforest timbers have greater prospects in high-end furniture markets, flooring and veneers. Quarter-sawn timbers that can be sliced have great appeal in the Japanese market and small volumes of high-grade timber that can be sliced for veneers as thin as one millimetre can command high prices in these markets. Farm foresters may need to 'rename' domestic species to create customer identification and acceptance in destination markets and educate the consumer. This type of marketing commitment can take many years and often the easiest solution to enhance prospects is to target specific companies rather than general sales in destination markets. Involving potential end-user companies at an early stage rather than when the timber is harvested would enhance the prospects for sales by allowing companies to factor in potential supplies. For the farm forestry sector a common purpose is necessary to realise these prospects, with more cooperation than has been seen in the market up to now.

CONCLUSION

This paper has outlined a view of issues that affect the market prospects of farm foresters. The conclusion reached is that an alignment with industrial suppliers or government interests provides farm foresters with the most certainty but the least say in prospects for their timber. Market prospects can be realised when selected species, specific outputs or targeted markets are pursued in a regional or umbrella organisation that helps to establish the credentials for a long-term marketing approach to be achieved that benefits the owners of the resources.

Farm forestry in north Queensland has limited chance of alignment with industry plantations or state governments, due to the absence of a DPI Forestry joint venture program. Its supply of timber is derived from a relatively low volume base and is erratic, and its sales are based on ad hoc and opportunistic marketing. In addition, its available species from private native forests are more diverse, which creates problems when prospects for its timber output are considered. These problems are compounded by distances to large markets, and lack of timber milling and value-adding options due to lack of resource scale, limited species recognition and no coordinated timber marketing experience.

There are particular strategies that might be pursued to enhance these prospects in domestic and export markets. A fundamental change in behaviour may be needed to meet these requirements. Farm foresters have planted trees with multiple criteria in mind in the past with little thought to end-use and often a vague notion of returns. This approach has meant uncertain returns and a lack of prospects for sellers aside from opportunistic sales. In order to improve prospects for small-scale forestry species, some suggestions have been made to adopt niche marketing behaviour patterns, target specific segments within markets domestically and overseas, attach timber species to defined end-uses and align output to specific end-users as part of a long-term relationship

The best prospects for these approaches occur in Australia's largest market which is Japan. Although it has not been discussed in this paper, segments of the US market have similar prospects although transport distances are greater. The difficulties in a sustained marketing campaign that coordinates many diverse growers to realise these prospects may be insurmountable but other organisations have shown that it is possible.

REFERENCES

Cox, M.A. (2002), 'Exporting for Small-scale Forestry Enterprises', Paper for IUFRO Conference on *Contributions of Family-farm Enterprises to Sustainable Rural Development*, IUFRO Working Unit 3.08.00 'Small-scale forestry' and IUFRO Working Unit 6.11.02 'Forestry and rural development in industrialised countries', 28 July – 1 August 2002, Gengenbach.

DPI Forestry (2001-02), 'Queensland Yearbook 2001-02', *Auracaria Processing Review*, http://www.forests.qld.gov.au/forind/forestry/yearbook0102/commercialperf0102.pdf.

Eastin, I., Addae-Mensah, A. and Appiah, S.K. (2000), 'The Marketing of Lesser-Used Tropical Timber Species', *ITTO Newsletter*, http://www.itto.or.jp/newsletter/v8n1/14.html.

Gooding, G. (2000), 'Establishing Markets for Timber Products in Japan – An Australian Hardwood Case', IUFRO Division 5 Eucalypt Working Party a conference on *'The Future of Eucalypts for Wood Products'*, March 2000, Launceston, Tasmania, Australia, http://www.ffp.csiro.au/conference/iufro/program.htm.

Bureau of Rural Sciences (2002), 'National Forest Inventory', *National Plantation Inventory Tabular Report – March 2002*, Bureau of Rural Sciences, Canberra.

Smorfitt, D., Herbohn, J. and Harrison, S. (2002), 'Cabinet-makers Awareness and Usage of Rainforest Cabinet Timbers in Queensland', *Small-scale Forest Economics, Management and Policy*, 1(1): 103–117.

Toivonen, R. and Laurila, R. (1997), 'Tree Species Information in Marketing of Solid Wood Products', Proceedings of the XI World Forestry Congress, Antalya, Turkey, 13-22 October 1997 (http://www.fao.org/montes/foda/wforcong/PUBLI/V4/T212E/3.HTM).